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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TRAN, KHANH C

ART UNIT PAPER NUMBER

2611

DATE MAILED: 08/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/911,840

Applicant(s)

CUMERALTO ET AL.

Examiner

Khanh Tran

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 16, 22 and 23 is/are allowed.
- 6) ☒ Claim(s) 17-21 and 24-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The Amendment filed on 06/09/2006 has been entered. Claims 15-28 are pending in this Office action.

### ***Response to Arguments***

2. Applicant's arguments, see page 8 of Applicants' Remarks, filed on 06/09/2006, with respect to the rejection(s) of claim(s) 8-10 and 13 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn after Applicants cancelled on the rejected claims. However, upon further consideration, a new ground(s) of rejection is made in view of Partyka U.S. Patent 6,188,715 B1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 17-21 and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Partyka U.S. Patent 6,188,715 B1.

Regarding claim 17, Partyka invention is directed to a radio transmission system including many radio transmitters that use frequency hopping carrier to intermittently transmit very short messages indicative of status of sensors associated with the transmitters, and to provide a synchronization means and method that allows a receiver to receive messages from all the frequency hopping transmitters; see column 4 lines 25-35.

In column 17 lines 20-67, FIG. 2 illustrates a block diagram of a receiver including a control logic 190 comprising: (a) a plurality of ID memory registers 134 to hold digital data indicative of ID numbers for each transmitter that belongs to the system, (b) a plurality of time memory registers 136 to hold digital data indicative of the time of the next transmission occurrence for each respective transmitter, and (c) a plurality of frequency memory registers 138 to hold digital data indicative of the frequency of the next transmission occurrence for each respective transmitter.

In operation, Partyka teaches that the receiver control logic 190 (also shown in FIG. 5) sequentially compares the data content of the time registers 136 with the data content of the receiver timer 132 and if the transmission is due from a transmitter, the control logic programs the frequency selective radio receiver demodulator circuit according to the data content in the frequency register 138 for this transmitter, attempts to decode the demodulated signal, changes the content of the time register based on the number representative of the time interval between the transmissions for this transmitter and changes the content of the frequency register according to a predetermined algorithm for this transmitter. In light of the foregoing teachings, the act

of comparing the data content of the time registers 136 with the data content of the receiver timer 132 to determine if the transmission is due from a transmitter corresponds to the step of determining a message arrival time as set forth in the application claim.

Partyka does not explicitly teach the claimed step of activating a receiver as set forth in the claimed invention. However, as recited above, because the control logic 190 programs the frequency selective radio receiver demodulator circuit if the transmission is due from a transmitter as a result of the comparison, one of ordinary skill in the art at the time the invention was made would have recognized that the act of programming the frequency selective radio receiver demodulator circuit if the transmission is due from a transmitter as a result of the comparison corresponds to the step of activating a receiver of the first reader as claimed.

Regarding claim 18, as recited in claim 17, the control logic 190 comprising: (a) a plurality of ID memory registers 134 to hold digital data indicative of ID numbers for each transmitter that belongs to the system, (b) a plurality of time memory registers 136 to hold digital data indicative of the time of the next transmission occurrence for each respective transmitter, and (c) a plurality of frequency memory registers 138 to hold digital data indicative of the frequency of the next transmission occurrence for each respective transmitter.

Regarding claim 19, in column 18 lines 15-45, Partyka further teaches in one embodiment that if the timer resolution is 0.3 ms, then the next transmission time can be predicted with accuracy 0.3 ms. The receiver can program its frequency 0.3 ms in advance to each new frequency.

Regarding claim 20, as recited in claim 17, the transmitters use frequency hopping carrier to intermittently transmit very short messages indicative of status of sensors associated with the transmitters. The receiver as shown in FIG. 2 includes a plurality of frequency memory registers 138 to hold digital data indicative of the frequency of the next transmission occurrence for each respective transmitter.

Regarding claim 21, in column 17 lines 5-25, the receiver as shown in FIG. 2 further includes a multi-channel RSSI function is to assist the controller with obtaining initial synchronization and to reacquire synchronization with transmitters with whom the synchronization has been lost.

Regarding claim 24, claim is rejected on the same ground as for claim 17 because of similar scope.

Regarding claim 25, the receiver as shown in FIG. 2 is a base unit.

Regarding claim 26, claim is rejected on the same ground as for claim 18 because of similar scope.

Regarding claim 27, claim is rejected on the same ground as for claim 19 because of similar scope.

Regarding claim 28, claim is rejected on the same ground as for claim 21 because of similar scope.

#### ***Allowable Subject Matter***

4. Claims 15-16 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 15, claim 15 is allowable over prior art of record because the cited references (e.g. Partyka U.S. Patent 6,188,715 B1) do not teach or suggest the uniquely distinct features “predicting, by the receiver, whether the future second transmission will be unsuccessful based on the first set of determined frequency hopping information” and “responding to a predicted unsuccessful future second transmission by adjusting the communicating between the first end point module and the receiver”.

5. Claims 22-23 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 22, claim 22 is allowable over prior art of record because the cited references (e.g. Partyka U.S. Patent 6,188,715 B1) do not teach or suggest the uniquely distinct features “predict whether the future second transmission will be unsuccessful based on the first set of determined frequency hopping information” and “respond to a predicted unsuccessful future second transmission by adjusting the radio communications between the first end point module”.

### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Partyka U.S. Patent 6,535,544 B1 discloses “Frequency Hopping System For Intermittent Transmission”.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2611

KCT

*Phanhcong Tran*

08/14/2006

Primary Examiner KHANH TRAN